

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
DEPARTMENT OF PESTICIDE REGULATION  
MEDICAL TOXICOLOGY BRANCH

SUMMARY OF TOXICOLOGY DATA

HEXAHYDRO-1,3,5-TRIETHYL-S-TRIAZINE (VANCIDE TH)

Chemical Code # 001670, Tolerance # 50764  
SB 950 # 698

April 30, 1993

I. DATA GAP STATUS

Chronic toxicity, rat:	Data gap, no study on file.
Chronic toxicity, dog:	Data gap, no study on file.
Oncogenicity, rat:	Data gap, no study on file.
Oncogenicity, mouse:	Data gap, no study on file.
Reproduction, rat:	Data gap, no study on file.
<b>Teratology, rat:</b>	No data gap, possible adverse effect.
Teratology, rabbit:	Data gap, no study on file.

**Gene mutation:** No data gap, possible adverse effect.

**Chromosome effects:** No data gap, no adverse effects indicated.

**DNA damage:** No data gap, possible adverse effect.

**Neurotoxicity:** Not required at this time.

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Toxicology one-liners are attached.

All record numbers through 116331 (Doc. 50764-006) were examined.

**Bold face** indicates a possible adverse effect.

File name: T930430

Revised by: Kellner 4/30/93.

These pages contain summaries only. Individual worksheets may contain additional effects.

II. TOXICOLOGY ONE-LINERS AND CONCLUSIONS

COMBINED, RAT

No study on file.

CHRONIC TOXICITY, RAT

No study on file.

CHRONIC TOXICITY, DOG

No study on file.

ONCOGENICITY, RAT

No study on file.

ONCOGENICITY, MOUSE

No study on file.

REPRODUCTION, RAT

No study on file.

TERATOLOGY, RAT

**\*\*50764-005 116270** "Developmental Toxicity Study in Rats with Vancide TH (MRD-89-408)", (B.K. Beyer, Exxon Biomedical Sciences, Inc., Laboratory Project ID 240834, 4/26/91). Vancide TH, purity 96.6%, was administered by oral gavage at concentrations of 0 (control), 10, 75 or 150 mg/kg to 25 pregnant Sprague-Dawley rats/group during days 6 through 15 of gestation. Body weight gain was reduced for the high dose group; Maternal NOAEL = 75 mg/kg. Increased mortality in mid- and high-dose dams was probably the result of trauma brought about by dams struggling during administration of an unpleasant compound; Maternal NOEL = 10 mg/kg. **Possible Adverse Effect:** Dose-related increase in fetal bilateral dilated renal pelves and bilateral convoluted ureter. Developmental NOEL = 10 mg/kg. ACCEPTABLE. Kishiyama, Kellner and Aldous, 4/30/93.

## TERATOLOGY, RABBIT

No study on file.

## GENE MUTATION

**\*\*50764-006 116331**, "CHO/HGPRT Mutation Assay with Confirmation", (Jacobson-Kram, D., Study Director, Microbiological Associates, Inc., Study No. T8796.332010, 4/12/90). Hexahydro-1,3,5-Triethyl-s-triazine (Vancide TH), purity 98.5% was tested in the CHO/HGPRT mutation assay (5 hour exposure) using the following dose-ranges: 0.035 to 0.0035  $\mu$ l/ml with rat liver S-9 Mix, 0.03 to 0.003  $\mu$ l/ml without S-9 (initial assay); 0.035 to 0.001  $\mu$ l/ml with S-9, 0.03 to 0.005  $\mu$ l/ml without S-9 (first confirmatory assay); 0.035 to 0.01  $\mu$ l/ml with S-9 and 0.03 to 0.005  $\mu$ l/ml without S-9 (second confirmatory assay). **Possible Adverse Effect:** mutant frequency was increased significantly in both confirmatory assays at test-compound levels as low as 0.02  $\mu$ l/ml. ACCEPTABLE. (Kishiyama, Kellner and Aldous, 3/24/93).

**\*\*50764-005 116265** "Salmonella/Mammalian-Microsome Plate Incorporation Mutagenicity Assay (Ames Test) with A Confirmatory Assay", (San, R. H. C. and Kruehl, C., Microbiological Associates, Inc. Laboratory Study No. T8796.501014, 11/28/89). Hexahydro-1,3,5-Triethyl-s-triazine (Vancide TH), purity 98.56%, was tested at 6.7 to 500  $\mu$ g/plate (exper. B1 and B2) and 1 to 500  $\mu$ g/plate (confirmatory exper.) in the reversion assay using Σαλμονελλα τυπιμυριουμ strains TA98 TA100, TA1535, TA1537 and TA1538 with and without metabolic activation (rat liver S-9). **Possible adverse effect:** mutagenic responses in strains TA98 (2.9-fold increase in revertant count) and TA100 (2.7-fold increase) with metabolic activation. **Acceptable.** (Kishiyama, Kellner and Aldous, 3/31/93).

## CHROMOSOME EFFECTS

**\*\*50764-005 116266**, "Micronucleus Cytogenic Assay in Mice", (Putman, D. L. and Melhorn, J. M., Microbiological Associates, Inc., Laboratory Study No. T8796.122010, 11/15/89). Hexahydro-1,3,5-Triethyl-s-triazine (Vancide TH), purity 98.56%, was administered a single dose by gavage in the mouse micronucleus test at concentrations of 0 (distilled water), 25, 125 or 225 mg/kg to 5 ICR mice/sex/group. **No Adverse Effects.** No increase in micronucleated

polychromatic erythrocytes at 24, 48, or 72 hours after dose administration. ACCEPTABLE.  
(Kishiyama, Kellner and Aldous, 4/5/93).

#### DNA DAMAGE

**\*\*50764-005 116263**, "Unscheduled DNA Synthesis in Rat Primary Hepatocytes", (Curren, R., Microbiological Associates, Inc., Laboratory Study No. T8796.380010, 12/1/89). Hexahydro-1,3,5-Triethyl-s-triazine (Vancide TH), purity 98.5%, was tested in the UDS assay in primary rat hepatocytes at dose levels of 0.001, 0.003, 0.01, 0.03 and 0.06  $\mu$ l/ml (also from 0.00003 to 0.1  $\mu$ l/ml in a parallel cytotoxicity study). **Possible Adverse Effect:** An increase in UDS was observed for Vancide TH at 0.06  $\mu$ l/ml. ACCEPTABLE. (Kishiyama, Kellner and Aldous, 4/8/93).

#### NEUROTOXICITY

Not required at this time.